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THEATER LEVEL DISTRIBUTION MANAGEMENT

by

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A paper submitted to the Faculty of the Naval War College in partial satisfaction of the requirements of the Operations Department.

The contents of this paper reflect my own personal views and are not necessarily endorsed by the Naval War College or the Department of the Navy.

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United States forces abroad and must be included in specific theater level distribution management doctrine.

Abstract of THEATER LEVEL DISTRIBUTION MANAGEMENT

The United States Military's theater level distribution management system is analyzed for adequacy and efficiency through a review of the current system. In addition, the realities of today's shrinking force structure and the roles of host nation support and information management systems are In order to maximize efficiency within the considered. distribution management system it is important that more specific doctrine governing theater level distribution be developed, that unity of effort through jointness be emphasized, that there be widespread understanding of the system throughout the chain of command, and that computerized distribution system management and information systems be universally compatible. The decreasing size of the United States Armed Forces and the move toward consolidation of the remaining forces in the continental United States have a critical impact on the theater level distribution system. Combat units should arrive in theater fully ready to fight and be self sufficient for some initial period. Host nation support will be an increasingly key factor in operating United States forces abroad and must be included in specific theater level distribution management

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THEATER LEVEL DISTRIBUTION MANAGEMENT

CHAPTER I

INTRODUCTION

Logistics is an important aspect of warfare. It is the basis of an armed force's ability to initiate and sustain engagement with the enemy. Colonel K. N. Brown, U.S. Army ties logistics and strategy inseparably together. He asserts that they are of equal importance and that it is dangerous for "the thinkers" who devise strategy to ignore logistics since that would assume that crises are met and wars are fought by elite strategists and not in the real world. As armed forces have become more technically oriented, logistics has taken on an increasingly more important role. The modern force cannot sustain the fight without ammunition, fuel and repair parts to keep it's high tech war machines operating. Mr. Henry M. Wriston, a past president of The American Assembly of Columbia University, says "The increase of complicated equipment -- so often mislabeled "pushbutton defense" -- requires a higher ratio of support units to combat units than simpler weapons needed."2 As the level of technology continues to increase so will the level of required logistic support.

Logistics is a many faceted subject. The focal point of this paper, the United States military theater level distribution system, is described as "the heart of any theater logistics system" in JCS Pub 4-0 (Doctrine for Logistics Support

of Joint Operations). Distribution is the function that encompasses the dispensing of materiel, facilities, people, information, and services. It includes managing of priorities and allocations of goods and services as well as transportation.

The military transportation system is divided into strategic and tactical systems. The strategic system encompasses movement from the point of origin to the arrival in the theater of operation. It is also called "intra-theater" transportation. The tactical system begins with the arrival at the tactical unit and ends with consumption of the commodity. Exactly what constitutes a tactical unit will change with the size of the conflict. For example, in a major war the tactical unit would be an Army Corps, an Air Force Airwing or a Maval Battle Group. The transition between strategic and tactical transportation is theater (or operational) level transportation. "Inter-theater" transportation, transportation within the theater of operation, is a combination of theater level and tactical transportation.

The distribution function has transportation as it's backbone and can be similarly divided between strategic, theater, and tactical levels. On a strategic level the distribution function is primarily transportation oriented. On the theater and tactical levels however, substantially more management is involved in dispensing goods and services than just transportation management, thus at a theater level it is more meaningful to analyze distribution management rather than just transportation management.

After a brief background the current organization of the distribution management system will be reviewed, followed by an analysis of some desired attributes of a standardized theater level distribution management system that are not evident in the current system. Finally, three additional areas will be considered: first, the impact on the theater level distribution system of downsizing United States military forces and consolidating many of the remaining forces back in the continental United States; next, the interface with host nation support; and third, management information systems and their role in distribution system management.

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CHAPTER II

CURRENT DISTRIBUTION MANAGEMENT SYSTEM

Coordination of the distribution management system across the spectrum of strategic, operational and tactical logistics is a key to a successful and efficient system. It is clearly stated in Joint Pub 1 as follows:

Transportation enables the joint campaign to begin and continue. The projection of power relies upon the mobility inherent in air, naval, and land forces, supported by the defense transportation Transportation at the strategic system. operational levels of war is a complex operation. It can best be served by a single, sound deployment concept that reflects enroute and theater constraints and undergoes minimum rapid changes (which may create unforeseen, cascading effects). Experience has shown that the cooperation of all supporting combatant commands and Services is required to ensure the efficient coordination and execution of a major deployment...

There are several players involved in the distribution management system, the Services, USTRANSCOM, and the theater CINCs. Their responsibilities and authority comes from various sources.

The Services are tasked in DOD Directive 5100.1 "to develop, garrison, supply, equip, and maintain bases and other installations and furnish administrative and logistic support for all forces and bases". This obviously includes aspects of the distribution function. The joint emphasis that has been developing since the Second World War has not deleted this function.

On 1 October 1986 USTRANSCOM was created to provide for wartime air, land and sea transportation. Then on 14 February 1992, the Secretary of Defense expanded the mission of USTRANSCOM to include peacetime cognizance of transportation for the Department of Defense. At the same time the transportation assets of the Services were assigned to CINCTRANS, with the exception of service-unique or theater-assigned transportation assets. Essentially this took the Air Force's Air Mobility Command (the old Military Airlift Command (MAC)), the Navy's Military Sealift Command (MSC), and the Army's Military Traffic Management Command (MTMC) and assigned them to CINCTRANS. As a unified command, USCINCTRANS is responsible for all aspects of transportation from point of origin within the United States until arrival in the theater of operation.

The theater CINC is responsible for using the logistical resources provided by the Services within his theater to generate, produce and support theater combat power. As previously stated in the introduction, the transportation and distribution system is the heart of any theater logistics system.

The strategic distribution system is under the control of CINCTRANS. It is a clearly defined system with established responsibilities assigned to subordinate commanders within TRANSCOM. The Joint Operational Planning and Execution System (JOPES) is used to execute deployment of forces. JOPES was developed for the purpose of joint planning of which the

transportation planning and management aspects are but a small part. The Defense Transportation System (DTS) is a set of transportation policies, procedures and methods used to execute the mission of sustainment.

The DTS uses a standardized procedure, MILSTAMP, that focuses on shipping procedures for international traffic. Using MILSTAMP procedures the Terminal Management System (TERMS) is an automated system used at CONUS terminals to control and monitor cargo movement and provide movement information.

The three major subordinate commands under CINCTRANS; MSC, MAC (Air Mobility Command when it is officially established), and MTMC perform sealift, airlift and traffic management functions respectively in CONUS. Each of these subordinate commands also interfaces with their counterparts in the theater logistics command structure. USTRANSCOM commands work toward integration of the strategic and the theater movement control systems through transmission of transportation information to theater counterparts and through the operation of strategically based activities within the theater.

The MTMC has responsibility for managing the terminals for in theater sea ports of debarkation (SPOD). Operations at the SPOD terminals are managed with a batch-mode, punch-card system called the Department of the Army Standard Port System (DASPS).

MAC (Air Mobility Command when established), establishes a Commander for Airlift Forces (COMALF) who oversees all theater airlift operations. In addition to his primary chain of command

through MAC to CINCTRANS, COMALF also reports to the theater Air Force Component Commander. MSC establishes a command in the area of operations who works for CINCTRANS and performs MSC missions but who also coordinates with the theater CINC.

In addition to the coordination provided by USTRANSCOM commands assigned in theater, the theater CINC provides personnel at CONUS sites to oversee and manage the CINC's interests to ensure that items are shipped in accordance with priorities set by the CINC and that they are arranged to arrive in theater in the desired order. His representatives are in the form of Departure Airfield Control Groups (DACGs) and Port Support Activities (PSAs). 10

The current joint logistics concept supports a theater distribution management system in which each service provides its own logistics support while the combatant commander exercises directive authority over logistics operations within his AOR to: 1. ensure effective execution of OPLANS, 2. provide for efficiency and economy in operations, and 3. reduce or eliminate unnecessary duplication of facilities and overlapping functions. 11

The specific organization of the theater distribution management system is the responsibility of the CINC. Experience has shown that a movement control system that establishes clear priorities and properly apportions resources while at the same time takes advantage of the transportation strengths of each Service will work the best. 12

The CINC establishes a system that best suits the circumstances. He may choose a functionally based system with either dominant user or best provider control or he may select a geographically based system. The system may be uni-service, common service or joint service.

Using a joint movement control system approach a Joint Transportation Board is established to develop transportation policies that will accomplish the CINC's objectives. It is not a control organization and meets to establish policies and resolve problems. It usually consists of service component representatives, and representatives from the CINC's J-3 and J-4. The vehicle to oversee the execution of the CINC's policies and priorities is a Joint Movement Center (JMC). The JMC is responsible for planning future operations and for monitoring the overall theater transportation performance. 13

The Services have a long history of providing support to their forces and have well established tactical distribution systems. Each Service has certain strengths that are available to the theater CINC. The Army's theater distribution strengths are land and inland waterways transportation and port operations. The Army's Movement Control Agency (MCA) can provide theater level movement management, while the Theater Army Material Management Center (TAMMC) provides overall logistics management and control. 14

The primary strength the Air Force brings to the theater is the ability to provide and manage airlift. Control and

management is provided by COMALF through an Airlift Control Center (ALCC) or through the establishment of an Airlift Management office. The Air Force manages internal Air Force theater transportation requirements through Logistics Readiness Centers (LRCs) and Transportation Management Offices (TMOs). 15

The Navy and Marine Corps both have the capability to conduct common user port operations on a limited basis. They both control and manage their own airlift and land transportation requirements internally for submission to the appropriate theater coordinator. 16

The strategic distribution system which essentially consists of the strategic transportation system, although massive and certainly complicated, has a clearly established structure and procedure. USTRANSCOM has a firmly established chain of command with specific tasks assigned to subordinate commands. The Services have well developed distribution systems as well as experience and expertise in providing support to their forces. That is not to say that the strategic and tactical systems are without faults but compared to the theater level distribution system they are more clearly defined and established. When evaluating any particular distribution system one should be cautious of what Henry M. Wriston so perceptively said about Radm Eccles analysis of logistical organizational structure.

It is hopeful of less friction to see such perceptive treatment of the age-old dilemma between design of a flawless organizational structure and the personal relationships which can make the theoretically poor organization work tolerably well, and a perfect structure fall flat.

However, the doctrine that exists at the theater level for distribution system operation and management is general and it's specific structure is left up to the CINCs. There are duplicative commands working for USTRANSCOM and the CINCs to coordinate the transition between the strategic and theater levels as well as commands working for two commanders. These apparent weaknesses will be analyzed in the next chapter.

CHAPTER III

STANDARDIZED THEATER DISTRIBUTION MANAGEMENT SYSTEM

It is well established that coordinating movement control agencies all along the chain of command is important. Without a good turnover of information between organization much can be lost. Extra work can be required to reinventory shipments or time can be lost in finding critical items. The examples are endless. Lieutenant General W.B. Palmer observed the following after World War II:

Repeatedly in World War II, supplies were landed in such an excess of tonnage over the capabilities of the local logistics organization to cope with it, that pretty soon many things could not be found at all. The next thing, the Zone of the Interior had to rush out a special shipload of something which was right there in theater--and always at a time when ships were worth their weight in gold. Soon the war moved on and supplies were left behind, which are still being gathered up and sorted out to this day. Two years after the Korean War started, I visited Pusan. had been working hard, and by that time they had sorted out probably 75 percent of the supply tonnage there. Twenty-five percent of the tonnage on hand was not yet on stock record and locator cards2

The current practice of duplicating coordination efforts in the transition between the strategic and the theater level distribution system is wasteful of manpower and management. As discussed in chapter II the CINC provides liaison personnel at CONUS sites to look after the CINC's interests while USTRANSCOM has commands assigned in theater to manage the distribution system as it transitions to the theater level. Without standard

organizational doctrine to govern the theater distribution system the organizational relationships that are vital to an effective system have to be developed for each theater. Having different relationships and different types of counterparts depending on the theater makes the transition more complicated for TRANSCOM personnel. Standard organizational doctrine with well established relationships makes more sense than duplicative coordinating bodies.

As the military continues to grow and develop in the era of jointness there is room for more jointness in theater level distribution management. Unity of command could go a long way toward improving efficiency by removing institutional barriers to cooperation. As a historical example, during the preparation for the invasion of Normandy the movement control system established in theater to marshall and embark the invasion forces was called Buildup Control Organization (BUCO). BUCO was under joint direction of the allied "component" commanders (although they were called tactical commanders then not component commanders), the Army, Navy, and Air Commanders-in-Chief not directly under the Supreme (or theater) Commander. BUCO had two subordinate agencies Movement Control (MOVCO) and Turn Around Control (TURCO). MOVCO was responsible for force movement and ship allocation. TURCO assisted naval commanders with ship and landing craft movement control. separately from BUCO was the Commander European Theater of Operations Service of Supply (ETOUSA-SOS) whose task was to

mount the invasion forces. A subordinate command of ETOUSA-SOS established an Embarkation Control (EMBARCO) organization to control movement of units from troop concentration area to embarkation point. There were no clear lines of responsibility between BUCO, MOVCO, TURCO, ETOUSA-SOS's subordinate, and EMBARCO. EMBARCO encroached directly on the authority of MOVCO leading to the failure to match movements in and out of the marshalling areas and a failure to match movements with port capacity. Clearly unity of command and unity of effort could have improved the situation. Despite the progress made in jointness since the Second World War there is still resistance to the concept of unity of effort through jointness. During Desert Storm when designated Services provided logistics support for some specified commodities across the theater this integrated joint concept was deemed "an exception" to the rule that each Service is normally self-supporting. Standard theater level organizational doctrine should ensure joint concepts receive continued increasing emphasis in all theaters.

No one should be accountable to more than one chain of command. The conflicts that arise from trying to accomplish more than one set of priorities is legion. Current guidance addressed in the previous chapter has COMALF working for both the CINCTRANS and the theater chain of command. Standard theater level organizational doctrine should ensure no multiple command situations exist.

The current doctrine for the formation of a Joint Task

Force (JTF) allows the commander to select his organization as he is preparing his plan of action. Flexibility is indeed good but Radm Eccles tells us that if a distribution organization is not set up in peacetime that will work in war, the reorganization problems will likely result in a reduction in his combat efficiency. Under pressured circumstances the hasty changes have usually resulted to the logistics snowball effect.5 During Desert Storm CENTCOM had to establish an ad hoc logistics headquarters for the Army at the theater level because that capability existed in the Reserves that the CINC elected not to mobilize early because of other priorities. While the ad hoc organization was successful it's establishment at a time of crisis could have had disastrous results had Iragi forces advanced into Saudi Arabia early on in Desert Shield. To wait until the crisis is upon us is too late, there needs to be a standard joint theater distribution management organizational structure that is in place when needed.

Personnel responsible for logistics are not the only ones who need to be knowledgeable on the system and the associated procedures. Both Generals Patton and Montgomery pressured General Eisenhower to allow them to make a rapid advance across Europe during the Second World War. Perhaps both aggressive Generals knew that the logistical situation would not support such an offensive but perhaps if they had been more knowledgeable in the area of logistics they would have realized the impracticality of their requests. A more recent example of

a lack of appreciation for the limits of a logistical distribution system occurred during the Falkland Island War when Brigadier Wilson advanced toward Stanley with 2 Para after the battle at Goose Green. If commanders all along the chain of command are not familiar with their supporting logistical distribution systems their decisions may adversely affect their combat effectiveness. With a standard theater level distribution system there would be an opportunity for operationally oriented personnel to train and become familiar with procedures that are the same throughout the force.

CHAPTER IV

IMPACT OF FORCE DOWNSIZING

With the advent of the reductions in military force strength and the movement toward consolidation of those forces in the continental United States, theater distribution becomes more difficult. There will be less in theater when the call to action comes. Forces may be required to move into potentially hostile territory. Not a forced entry, such as an amphibious landing or an area with fighting in progress, but an area where the situation requires forces to be ready to fight immediately upon arrival in theater as hostilities are imminent.

Desert Storm provides a good example. Initially there was little to prevent Iraqi forces from invading Saudi Arabia. The initial U.S. forces to arrive were entering potentially hostile territory. No actual fighting, but the threat was very real. The 82ND Airborne Division arrived without the ability to sustain itself. The Army and the Air Force currently do not have the capability to arrive in theater self sufficient and ready to fight. Naval forces have, out of necessity, been historically self sufficient to the extent that they normally have organic (within the force) capability for operations away from outside logistic support for an extended period. The chances of encountering similar situations with operations required where there are not forward deployed forces in theater increases as forces are brought home. One way to mitigate the

problem of providing immediate theater level logistics support is to develop increased organic sustainability in Air Force and Army units to allow them to fight longer until the requisite theater logistics distribution system can be established.

As we found out during Desert Storm we cannot depend on Reservists to man critical distribution system positions unless we can afford the time and the strategic lift it will take to establish the system. Making units initially self contained would ease the urgency for rapid establishment of a theater distribution system. To make the concept of unit self sufficiency applicable over the entire range of possible conflicts from low intensity conflicts through major each type of unit from battalion or possibly even company level on up should be capable of self sufficiency for 30 to 60 days upon arrival in theater.

As the total force numbers go down the size of the required distribution system also decreases. Certainly we need to retain the capability to support our forces but with fewer divisions, airwings and ships we just won't need as much support. With a smaller distribution system it makes sense to maximize the joint effort to assure ourselves of retaining the benefits of scale. Combining duplicative capabilities that would benefit from operation on a larger scale should be emphasized in the standardized theater level distribution system.

To resolve the difficulties created for the theater level distribution system by downsizing more logistics "tail" could be

put into active duty forces. "Reportedly, the Army in particular would like to reduce its dependence on reserve support units for contingencies in the post cold war era by increasing it's active duty support structure even at the expense of active duty combat forces." The problems establishing a theater level distribution system at the time of crisis (discussed in Chapter III) and the need to quickly provide logistic support to sustain forces are certainly factors in the Army's consideration. Wartime distribution management systems do handle a vastly increased loading and require more personnel than peacetime systems. Having a standard theater distribution system organization would enable personnel from other theaters or reservists to easily augment the theater distribution system without changing it's structure. Combining the standard theater distribution system concept with self sufficient contingency forces would allow the time and resources necessary to accomplish logistic sustainment without further reducing active duty combat forces.

CHAPTER V

HOST NATION SUPPORT

To support armed forces in a foreign country either everything that is needed must be brought along or it must be obtained in the theater. To reduce the required strategic lift we must take advantage of logistics support available in the theater of operation. If we wait until the crisis occurs to start to make the necessary arrangements it is too late. How can we best incorporate host nation support into our logistical infrastructure? An appropriate way to organize host nation support is to include it in the theater organization.

For most of the same reasons previously presented that it is important to establish standardized distribution system doctrine it is important that we establish how host nation support will fit into that organization. If we know what will be available it can be easily factored into our planning. However, in reality we most likely will not know how much cooperation we will actually receive until the specific nature of the crisis at hand is understood. During Desert Storm, "Wartime host nation support was essential for rapid force sustainment and was a force multiplier until and after combat service support units arrived. However, very few support agreements had been negotiated with governments in the region prior to 2 August 1990."

A problem with laws and regulations governing host nation

support that was complicated by local customs also occurred during Desert Storm. While rule changes may be necessary, if agreements had been in place prior to the crisis, problems could have been resolved using routine non-crisis methods.

It is logical to assume that we are increasingly more likely to receive support as the magnitude of the crisis increases. For a large scale situation such as Desert Storm host nation support is both more critical to fulfilling our needs and more likely to be forthcoming as compared to a contingency operation such as El Dorado Canyon was in Libya. Flight clearance over France was important but not critical and the limited nature of the operation did not make it imperative for France to participate in her view. This leads to the conclusion that the best way to achieve success may be to develop the agreements based on a hypothetical major crisis which is more likely to be supported by foreign governments. Once the agreements exist it is possible that even in a small crisis the support will be available because the ground work has been established in principle.

In any event we must continue to push for host nation support agreements in all the major AOR's. These agreements must become part of our distribution management system now in whatever form we can achieve so that in time of crisis systematic changes detrimental to efficiency are minimized.

CHAPTER VI

INFORMATION MANAGEMENT SYSTEMS

Information flow is a key to a successful distribution system. If managers throughout the distribution system are unable to determine where things are, when and how they are planned to be moved and what is available they will be ineffective in accomplishing their jobs. During Desert Storm the availability of communication links to support combat service support requirements were inadequate. In Chapter II the different systems used in theater (DASPS) and in CONUS (TERMS) to manage import and export terminals were discussed. The DASPS system, although it is in the process of being upgraded, is a manual punch card system.

In the arena of distribution management, each service and the MTMC develop, operate and maintain their own data processing systems that operate by procedures established by the cognizant authority. Each organization is undergoing modernization programs that are in various stages of completion which makes them reluctant to make procedural changes until existing upgrade programs are tested and evaluated. The compatibility of these systems is important but a single system, perhaps with several subsystems, is needed for the distribution system to ensure connectivity and efficiency. System standardization is complicated by having multiple organizations responsible for their own systems with no one clearly in charge. "A variety of

vendors provide DOD with hardware, software and network communications. Therefore, systems that support logistics functions and DLSS procedures will be incompatible even with service modernization efforts." USTRANSCOM should aggressively take overall responsibility for a standard distribution subsystem to an overall DOD logistics management information and data processing network. USTRANSCOM must force overall Service coordination to ensure uniform compatibility. The synergistic capability lost through lack of a unified program management effort is unacceptable.

CHAPTER VII

CONCLUSIONS AND RECOMMENDATIONS

U.S. Department of Defense distribution management doctrine is good to the extent it has been developed. There needs to be more specific theater level distribution doctrine to ensure standardization that will yield an increased efficiency. transition between strategic and theater level distribution management could improved with standardization be and elimination of duplicate coordination efforts by USTRANSCOM commands and theater CINC organizations. Continued progress and improvement in joint unified command of theater distribution management should remove some institutional blocks and improve unity of effort. Specific standardized theater level distribution doctrine will assist in improving the knowledge of all personnel of the system and procedures thus adding to overall better and more efficient use of the system.

The decreasing force structure and the movement toward consolidation of forces in the continental United Stated causes increased difficulty in providing logistical support upon initial arrival in theater. The difficulty in quickly establishing a theater level distribution system to meet this challenge could be eased through increased unit self sufficiency. With more time available and using a standardized theater level distribution system doctrine, reserve forces and active duty forces from other theaters could more easily augment an existing theater distribution system.

Host nation support is critical and increasing in importance. It must be factored into standard theater distribution management system. A suggestion of a method to approach the establishment of agreements is to seek agreements for a large magnitude crisis which may be more supportable by potential host nation governments in an ideological sense.

Management information and data processing systems need more standardization in the distribution management arena to maximize interoperability and efficiency. USTRANSCOM should aggressively pursue a standardized distribution information management system to be used across the range from strategic to tactical distribution management.

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